United States Environmental Protection Agency
EPA New England
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June 12, 2003

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Public Information Repositories

RE: May 2003 Monthly Report
1.5 Mile Reach Removal Action
GE-Pittsfield/Housatonic River Site

Enclosed please find the May 2003 Monthly Report for the 1.5 Mile Reach Removal Action. In accordance with the Consent Decree for the GE-Pittsfield/Housatonic River Site, the United States Environmental Protection Agency (EPA) is performing the 1.5 Mile Reach Removal Action, with General Electric funding a portion of the project through a cost sharing formula.

The EPA has entered into an agreement with the United States Army Corps of Engineers (USACE) to assist in the design and construction of the Removal Action. The USACE subsequently awarded a design-construct contract to Weston Solutions, Inc. (Weston). Weston, with several subcontractors, will be performing the design and construction activities for the 1.5 Mile Reach Removal Action.

If you have any questions, please contact me at (413) 236-0969.

Sincerely,

Dean Tagliaferro

1.5 Mile Reach Removal Action Project Manager

1. Overview

During May 2003, EPA, the United States Army Corps of Engineers (USACE), the USACE's contractor, Weston Solutions, Inc. and Weston's subcontractors continued remediation activities on the 1.5 Mile Reach Removal Action. The primary work included soil and sediment excavation activities in Cells 11 and 11A and the backfilling of the riverbanks and riverbed in Cell 11. Installation of the permanent sheetpile retaining wall in Cell 11 was completed. Installation of topsoil, herbaceous seed mix and erosion control blankets above the riprap was completed in Cells 10, 10A and Cell 11, as well as installation of cellular geoweb in the Phase II portion of Cell 11. Also, tree and shrub planting was completed in Cells 2, 3, 4, 5, 6, 6A, 7, 7A, 9, and 12. In addition, a transfer of non-TSCA materials from the stockpile management areas to the GE On Plant Consolidation Areas (OPCAs) was performed.

2. Chronological description of tasks performed

Refer to Figure 1 for an orientation of the sheetpile cells and their respective locations.

By the end of April 2003, Cell 11 was isolated, dewatered and excavation activities were initiated. During the first week of May, the TSCA and non-TSCA material excavation activities in Cell 11 continued. Since there is limited access from the top of the bank into Cell 11, a temporary access ramp was built into the cell. The ramp was built at the upstream end of the cell over unexcavated sediment and bank materials. The ramp was constructed by placing geotextile fabric on the existing soil, a four-inch layer of filter stone over the fabric and a two inch thick layer of 2-inch stone on top. The excavated TSCA material was transported to the Building 63 stockpile management area and the non-TSCA material was transported to the Building 65 stockpile management area (see Table 1 for a daily summary of material transported to the stockpile management areas in the month of May).

Also during the first week of May, the installation of the downstream cutoff wall for Cell 11A continued. The installation of the hand railing on the Silver Lake Outfall box culverts in Cell 5A was completed as well.

During the second week of May, the TSCA and non-TSCA material excavation activities in Cell 11 were completed. During the excavation of Cell 11 NAPL-impacted sediment was encountered. The NAPL-impacted sediment (approximately 14 cubic yards) was removed and transported to the designated stockpile management area in Building 68 (see Table 2 for a summary of the quantities of sediment and soils excavated to date). No residual NAPL-impacted sediment was observed following the completion the NAPL excavation. Additional excavation was performed at the end of Phase I to allow for the installation of the proposed temporary dam. Also, the temporary access ramp was removed and the sediments and soils below the ramp were excavated and transported to appropriate stockpile management areas. The TSCA material excavated from the cell was transported to the Building 63 stockpile management area and the

non-TSCA material was transported to the Building 65 stockpile management area. The Cell 11 post-excavation verification survey was completed and approved. Upon completion of the riverbank excavation and verification survey, the riverbanks in Cell 11 were covered with polyethylene sheeting as a short-term erosion control measure.

Also, during the second week of May, the installation of the Cell 11 permanent sheetpile retaining wall at the toe of slope was initiated. The permanent sheetpile retaining wall will be installed beginning 12 feet upstream of the proposed temporary dam and extending the remaining length of Cell 11 and a portion of Cell 11A. Due to the steep slopes of the riverbank in this area, a permanent retaining wall is required for long-term riverbank stability. (See Figure 1 for the location of the temporary dam)

Other activities completed during the second week of May included the installation of Cell 11A downstream cutoff wall as well as the addition of a support wale on the downstream side of the Cell 11A downstream cutoff wall. The support wale was required because the downstream cutoff wall could not be driven to the required embedment depth. In addition, dewatering of Cell 11A was initiated and water greater than 6 inches in depth was pumped directly back to the river. Lastly, the top of the Silver Lake Outfall box culverts in Cell 5A were covered with a layer of gravel.

During the third week of May, the survey subcontractor staked out the backfill grades for Cell 11. The installation of the Cell 11 permanent sheetpile retaining wall was completed. Another temporary ramp was built into Cell 11 to allow for efficient progress of backfill activities. Again, the ramp was built at the upstream end of the cell, however, it was constructed using clean common fill. Riverbed backfill activities were completed and backfilling of the riverbank was initiated in Cell 11. The area of over excavation for the temporary dam was backfilled with two six inch thick filter layers and 9-inch riprap. In the Phase I portion of the cell, approximately 70 feet in length, the riverbed was backfilled with a minimum six inch layer of Filter Layer A and a minimum fifteen inch layer of 9-inch riprap. The Phase II portion of the riverbed, approximately 250 feet in length was backfilled with a six inch layer of Common Fill Filter Grade and six- inch layer of Filter Stone. The first 50 foot section of the Phase II portion of the cell was backfilled with 12-inch riprap and the remaining 250 feet was backfilled with 9-inch riprap. Two-inch diameter weep holes were installed every 10 feet in the permanent sheetpile retaining wall and a geotextile wrapped 2-inch stone drain system was installed behind the wall on the riverbank side of the wall to facilitate drainage of groundwater from behind the wall. The portion of the riverbank behind the permanent sheetpile retaining wall was then backfilled with six inches minimum of Common Fill Filter Grade, six inches of Filter Stone, and twenty-four inches of 18-inch riprap up to elevation 976.

Other activities included the continuation of dewatering activities in Cell 11A by pumping water greater than 6 inches in depth directly back to the river. The survey subcontractor began the stake out of the limit of excavation in Cell 11A. Also, the survey subcontractor completed the topographical survey in Cell 12A. The installation of a temporary holding cell constructed of flat sheetpile on the Cell 12A riverbank for future TSCA material excavation in Cell 11A was completed.

Also during the third week of May, trees (with the exception of black willows and eastern cottonwoods) and shrubs were planted in Cells 2, 3, 4, 5, 6, 6A, 7, 7A, 9, and 12. Watering activities were initiated in all the re-vegetated areas. Also, minor re-grading and additional topsoil placement was performed in Cells 7 and 7A to repair erosion and settlement that occurred over the winter.

During the fourth week of May, the riverbank backfilling behind the permanent sheetpile retaining wall activities in Cell 11 continued up to elevation 976. The riverbank above elevation 976 was backfilled with a minimum thirty-inch layer of Common Fill Filter Grade (compacted in six inch lifts to a minimum of 95 percent of the maximum dry density) and a six-inch layer of perforated cellular geoweb filled with topsoil. The cellular geoweb was required because the proposed final slope of the riverbank is as steep as 1.5 horizontal to 1 vertical (1.5H:1V). Slopes steeper than 2H:1V require additional stabilization measures such as the installation of cellular geoweb. The cellular geoweb was secured into the riverbank with rebar, one stake per 3 square feet.

The portion of the riverbank upstream of the permanent sheetpile retaining wall (with the exception of the temporary access ramp) was backfilled with six inches of Filter Layer A, six inches of Filter Layer B and twenty-four inches of 18-inch riprap. The first 20 feet of the cell was backfilled with riprap up to elevation 975 and then the rest of the riverbank up to the retaining wall was backfilled with riprap up to elevation 976. Thirty inches of common fill was placed above the riprap to the top of the riverbank.

The dewatering of Cell 11A was continued by pumping water greater than 6 inches in depth directly back to the river. Once the water depth reached 6 inches the water was pumped to the water treatment system. Sumps and trenches were installed in the bottom of the cell to facilitate the dewatering process. The survey subcontractor completed locating the excavation depths and limits in Cell 11A.

The installation of a second temporary holding cell constructed of flat sheetpile on the Cell 12A riverbank for future non-TSCA material excavation in Cell 11A was completed.

The placement of topsoil, herbaceous seed mix and biodegradable erosion control blankets was completed in Cells 10 and 10A. Watering activities for all the re-vegetated areas was continued.

During the fifth week of May, the riverbank backfilling behind the permanent sheetpile retaining wall in Cell 11 was completed. Topsoil was placed inside the geoweb and an herbaceous seed mix was spread and biodegradable erosion control blankets were placed on top of the geoweb. 18-inch riprap was installed at a toe of the slope at 1H:1V grade to cover the permanent retaining wall on the riverbed side of the permanent sheetpile retaining wall. The section of the sheetpile retaining wall where the temporary dam will be constructed was not backfilled with the 18-inch riprap. Once these backfilling activities were completed, the temporary ramp to Cell 11 was removed and stockpiled in the GE Lyman Street parking lot for future use. The remainder of the riverbank was then backfilled with a minimum of thirty inches of common fill. A six inch layer of topsoil was placed, an herbaceous seed mix was spread and biodegradable erosion control blankets were placed. The survey subcontractor completed the backfill verification survey of

Cell 11 and the water from the cell was pumped directly to the river. The dewatering of Cell 11 will continue until Cell 11A is excavated and restored.

Also, excavation of TSCA and non-TSCA materials was initiated in Cell 11A. The excavated TSCA materials were loaded into a skip bucket and transferred into the temporary TSCA holding cell on the Cell 12A riverbank. The material was then transported to the Building 63 stockpile management area. The non-TSCA materials within Cell 11A were loaded into a skip bucket and transferred into the temporary non-TSCA holding cell on the Cell 12A riverbank. This material was transported to the Building 65 stockpile management area. NAPL-impacted sediment was encountered during the excavation in Cell 11A. The NAPL-impacted materials (approximately 30 cubic yards) were removed and transported to a designated stockpile management area in Building 68.

During the month of May, the water treatment system treated water from Cells 11 and 11A. Sampling of the water treatment system for parameters included in the NPDES exclusion permit was performed on May 28, 2003. Due to the presence of NAPL in Cell 11A, the analytical parameters for the water treatment system sampling were expanded to include volatiles, semi-volatiles and Total Petroleum Hydrocarbons. Air monitoring for particulate matter (PM10 sampling) and surface water turbidity monitoring was performed on a daily basis. The monthly PCB air monitoring event was performed on May 30, 2003. Surface water sampling for total suspended solids (TSS) and PCBs was performed on May 8 and May 22, 2003. Sampling of Common Fill for chemical parameters was performed on May 13, 2003; sampling for Common Fill Filter Grade for chemical parameters was performed on April 28, 2003. Three-point composite disposal characterization sample was collected from the Cell 11 NAPL-impacted sediment stockpile in Building 65 on May 28, 2003. NAPL-impacted sediment sample was collected in Cell 11A on May 30, 2003.

Geotechnical samples were collected for Common Fill, Common Fill Filter Grade, Filter Stone, and 9-inch, 12-inch and 18-inch riprap. Visual inspections of the 9-inch, 12-inch and 18-inch riprap were performed. The results of the geotechnical testing and the visual inspections are not included in the monthly reports but are contained in other submittals and are available upon request.

Stockpile management area activities continued throughout the month of May. Daily inspections, and operation and maintenance activities were performed within Buildings 63, 65 and 68. This included the collection of accumulated water that drained from the stockpiles and transportation of that water to the on-site water treatment system. Decontamination of equipment was conducted prior to moving it between TSCA and non-TSCA staging areas.

The transfer of non-TSCA materials from the Building 65 and Building 68 stockpile management areas to the Hill 78 OPCA was performed from May 12 to May 14, 2003. Paint filter tests were collected at a frequency of 1 per 100 cubic yards (cy) of material loaded (see Table 3 for a summary of material transported to the OPCAs in May 2003 and Table 4 for a summary of material transported to the OPCAs for the project through May 2003).

Traffic control was conducted on Lyman Street throughout the month of May.

The vibration monitoring activities continued at the two structures (the Laundromat and the manual car wash) on Parcel I8-23-6. (See Figure 1 for the locations of the Vibration Monitors). Settlement and conditions monitoring was performed on selected structures and buildings adjacent to the construction areas in the Phase II area upstream and immediately downstream of the Elm Street Bridge.

The turbidity meter was relocated from the Elm Street Bridge to Fred Garner Park to allow for the installation of the 54-inch HDPE pipe for the gravity bypass system to be used in Phase II.

A staging area was constructed on Parcel I8-24-1. A temporary fence was installed on Parcels I8-23-2, I8-23-3, and I8-23-4. The parking lot area in the southeast corner of Parcel I8-4-201 was prepared for temporary repaving.

The removal of the abandoned siphon structures in Cells 9 and 10 was completed.

An excavator with cutting shears was mobilized to the site and was utilized to cut up all excavated tree stumps into pieces suitable for placement in the OPCA. The cut up pieces were considered to be a non-TSCA material. The majority of the tree stumps were transferred to the Hill 78 OPCA during the transfers performed from May 12 to May 14, 2003 while the remainder was transferred to the Building 65 stockpile management area.

Access road maintenance activities continued due to the heavy usage during construction activities. Unsuitable road material was removed and transported to the Building 65 stockpile management area. Also, all paved access roads, Lyman Street, and the Lyman Street parking lot were swept regularly by a street sweeper.

For the month of May a total of twenty-two truck loads (220 cy) of non-TSCA material were generated during the aforementioned miscellaneous site preparation and maintenance activities.

Dust control procedures continued for access roads, parking areas, and material storage areas. In addition, staged backfill materials were covered to prevent the generation of dust.

3. Sampling/test results received

PCB sample results for the water treatment system sampling program were received for samples collected on May 28, 2003 (Table 5). Non-PCB analytical results for the WTS samples collected on May 28, 2003 are not available yet. Analytical results for backfill materials are summarized in Table 6. This includes the sampling results for Filter Layer A samples collected on April 23, 2003; Common Fill samples collected on April 23, 2003, April 30, 2003 and May 13, 2003; Common Fill Filter Grade sample collected on April 24, 2003, and topsoil samples collected on April 24, 2003 and April 29, 2003. Results for Common Fill Filter Grade samples collected on May 28, 2003 are not yet available. The results of the daily particulate air monitoring program are summarized in Table 7. Table 8 is a summary of daily turbidity monitoring results. Results for PCB and TSS samples and water column monitoring data collected on April 23, 2003 and

May 8, 2003 are presented in Table 9. PCB and TSS results for water monitoring samples collected on May 22, 2003 are not yet available. A summary of samples collected for the air sampling conducted on April 30, 2003 and May 30, 2003 are provided in Table 10; however, the PCB data for samples collected on May 30, 2003 is not yet available. Table 11 contains PCB data associated with equipment confirmatory wipe samples. Table 12 presents the analytical data associated with NAPL-impacted sediment sample collected in Cell 11A on April 28, 2003. Results for NAPL-impacted sediment sample collected in Cell 11A on May 30, 2003 are not available yet. The results for the Cell 11 NAPL-impacted sediment stockpile in Building 65 collected on May 28, 2003 are also not available.

4. Diagrams associated with the tasks performed

Figure 1 is a map of Phase I and the beginning of Phase II and includes layout of all excavation cells, temporary dam, lot parcel identification numbers, water monitoring locations, PCB air sampling locations, vibration monitoring locations, access road locations, fence line location, the water treatment system pad location, the effluent discharge location, and the utility trench location.

5. Reports received and prepared

Weston received a vibration monitoring summary report for the period of May 1, 2003 to May 31, 2003 from Geosonics, Inc. During this period, two seismographs were set up on Parcel I8-23-6, one unit monitoring the Laundromat structure and the other unit monitoring the manual car wash structure. Both of the units were set up to collect data on continuous seismic mode. Activities occurring near the two monitoring locations during this period included normal background activities, sheet pile driving, and general construction activities. The maximum ground vibration level measured (outside of the times when the unit was disturbed for maintenance) reached 1.40 inches per second (ips). This level represents 70% of the state's recommended limit of 2.0 ips. All readings during this period comply with State Regulations.

6. Photo documentation of activities performed

See attached photos.

7. Brief description of work to be performed in June 2003

- Complete excavation and backfill activities in Cell 11A, including the installation of the permanent sheetpile retaining wall.
- Perform tree and shrub planting in Cells 10, 10A, 11 and 11A.
- Plant black willows and eastern cottonwoods in Cells 2 through 12.
- Remove the upstream and downstream cut-off walls for Cells 11 and 11A to allow the river to flow through the south side of the river channel.
- Install the upstream and downstream cutoff walls for Cell 12A.
- Remove the entire centerline sheetpile wall upstream of Cell 12A.
- Complete the assembly and installation of the 54-inch HDPE pipe for the gravity bypass system to be used in Phase II.
- Complete repaving of the parking lot area in the southeast corner of Parcel I8-4-201.
- Transfer TSCA materials from Building 63 to the Building 71 OPCA.
- Transfer non-TSCA materials from Buildings 65 and 68 to the Hill 78 OPCA.
- Continue stockpile management activities at Buildings 63, 65 and 68.
- Continue operation of water treatment system.
- Continue daily air and turbidity monitoring.
- Continue PCB air sampling (once a month), water column sampling (twice a month), water treatment system sampling (monthly) and backfill material sampling (as needed).
- Continue vibration monitoring of two structures located on Parcel I8-23-6.

8. Attachments to this report

Table 1. Quantity of Bank and Sediment Material Generated During the Month of May

Table 2. Quantity of Bank and Sediment Material Excavated to Date

Table 3. Quantity of Material Transferred to OPCAs During the Month of May